

# ***San Joaquin Valley Unified Air Pollution Control District***

**PERMIT UNIT:** S-353-2-4

**EXPIRATION DATE:** 10/31/99

**EQUIPMENT DESCRIPTION:**

473 HP NATURAL GAS FIRED IC ENGINE

## **Permit Unit Requirements**

1. Sulfur compound emissions shall not exceed 0.2% by volume, 200ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno ) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
2. Particulate emissions shall not exceed at the point of discharge, 0.1gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight or on liquified petroleum gas (LPG) with a sulfur content of less than or equal to 0.008% by weight. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas but not PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82, or D 3246-81. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4 .2] Federally Enforceable Through Title V Permit
7. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Operator shall determine the sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine. The sulfur content shall be determined using ASTM method D 2784-89. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4201]

12. IC engine shall be equipped with Waukesha Custom Controller system which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District NSR Rule] Federally Enforceable Through Title V Permit

13. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District NSR Rule] Federally Enforceable Through Title V Permit

14. All exhaust emissions shall exit through catalytic converter. [District NSR Rule] Federally Enforceable Through Title V Permit

15. NO<sub>x</sub> exhaust emissions shall be reduced by a minimum of 90% during initial tests and 80% thereafter across the control device, or shall not exceed 90 ppmv (calculated to 15% oxygen), averaged over at least 15 minutes. [District Rule 4701]

16. CO exhaust emissions shall not exceed 2,000 ppm (calculated to 15% oxygen), averaged over at least 15 minutes. [District Rule 4701]

17. Propane can be used as backup fuel during periods of natural gas curtailment or maintenance testing on propane and shall be limited to 336 cumulative hours of operation per calendar year. [District Rule 4701]

18. Source test to show compliance with CO and NO<sub>x</sub> emission limits shall be conducted at least every 24 months by an independent testing laboratory and shall be witnessed by the District. [District Rule 4701]

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The operator shall maintain records of hours of operation on propane. [District Rule 4701]

21. Source testing shall be performed for NO<sub>x</sub> (ppmv) according to EPA Method 7E (or ARB Method 100), and stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100). Source testing for CO (ppmv) shall be performed according to EPA Method 10 (or ARB Method 100). [District Rule 4701, 6.4]